

Docket No.: PBLI-P05-005

This is a continuation of U.S. Serial No.: 08/489,071 filed  
6/9/95

Title: Modified Interferons

Atty: William G. Gosz

Reg. No. 27,787

ATGGCCTTG  
MetAlaLeu  
-23

9

10	TCCTTTTCTTTACTGATGGTCGTGCTGGTACTCAGCTACAAATCCATCTGCTCTCTGGGC SerPheSerLeuLeuMetValValLeuValLeuSerTyrLysSerIleCysSerLeuGly -20 -10 -1	69
70	TGTGATCTGCCTCAGACCCACAGCCTGCGTAATAGGAGGGCCTTGATACTCCTGGCACAA CysAspLeuProGlnThrHisSerLeuArgAsnArgArgAlaLeuIleLeuLeuAlaGln 1 10 20	129
130	ATGGGAAGAATCTCTCCTTTCTCCTGCTTGAAGGACAGACATGAATTCAGATTCCCAGAG MetGlyArgIleSerProPheSerCysLeuLysAspArgHisGluPheArgPheProGlu 30 40	189
190	GAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCCATCTCTGTCCTCCATGAGATG GluGluPheAspGlyHisGlnPheGlnLysThrGlnAlaIleSerValLeuHisGluMet 50 60	249
250	ATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGACTCATCTGCTGCTTGGGAACAGAGC IleGlnGlnThrPheAsnLeuPheSerThrGluAspSerSerAlaAlaTrpGluGlnSer 70 80	309
310	CTCCTAGAAAAATTTTCCACTGAACTTTACCAGCAACTGAATGACCTGGAAGCATGTGTG LeuLeuGluLysPheSerThrGluLeuTyrGlnGlnLeuAsnAspLeuGluAlaCysVal 90 100	369
370	ATACAGGAGGTTGGGGTGAAGAGACTCCCCTGATGAATGAGGACTCCATCCTGGCTGTG IleGlnGluValGlyValGluGluThrProLeuMetAsnGluAspSerIleLeuAlaVal 110 120	429
430	AGGAAATACTTCCAAAGAATCACTCTTTATCTAACAGAGAAGAAATACAGCCCTTGTGCC ArgLysTyrPheGlnArgIleThrLeuTyrLeuThrGluLysLysTyrSerProCysAla 130 140	489
490	TGGGAGGTTGTCAGAGCAGAAATCATGAGATCCCTCTCGTTTTCAACAACTTGCAAAAA TrpGluValValArgAlaGluIleMetArgSerLeuSerPheSerThrAsnLeuGlnLys 150 160	549
550	AGATTAAGGAGGAAGGATTGA 570 ArgLeuArgArgLysAspEnd 166	

Fig. 1. Nucleotide and Amino Acid Sequence of Hu-  
IFN- $\alpha$ 001. The location of the A/wNI site is underlined.  
The signal peptide is shown as the 23 amino acids  
labeled -1 to -23.

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1  MALSFSLLMVVLVLSYKSICSLGCDLPQTHSLRNRRALILLAQMGRISPF 50
   ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
1  MARSFSLLMVVLVLSYKSICSLGCDLPQTHSLRNRRALILLAQMGRISPF 50
   . . . .
51  SCLKDRHEFRFPPEEEFDGHQFQKTQAISVLHEMIQQTFNLFSTEDSSAAW 100
   ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
51  SCLKDRHEFRFPPEEEFDGHQFQKTQAISVLHEMIQQTFNLFSTEDSSAAW 100
   . . . .
101 EQSLLLEKFSTELYQQLNDLEACVIEVGV EETPLMNEDSILAVRKYFQRI 150
   ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
101 EQSLLLEKFSTELYQQLNDLEACVIEVGV EETPLMNEDFILAVRKYFQRI 150
   . . . .
151 TLYLTEKKYSPCAWEVVRAEIMRSLSFSTNLQKRLRRKD 189
   ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
151 TLYLMEKKYSPCAWEVVRAEIMRSLSFSTNLKKGRLRRKD 189

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**Fig. 2. Comparison of the Protein Sequence of Hu-IFN- $\alpha$ 001 with that of Hu-IFN- $\alpha$ J. The signal peptide represents the first 23 amino acids at the amino terminus.**

[illegible]

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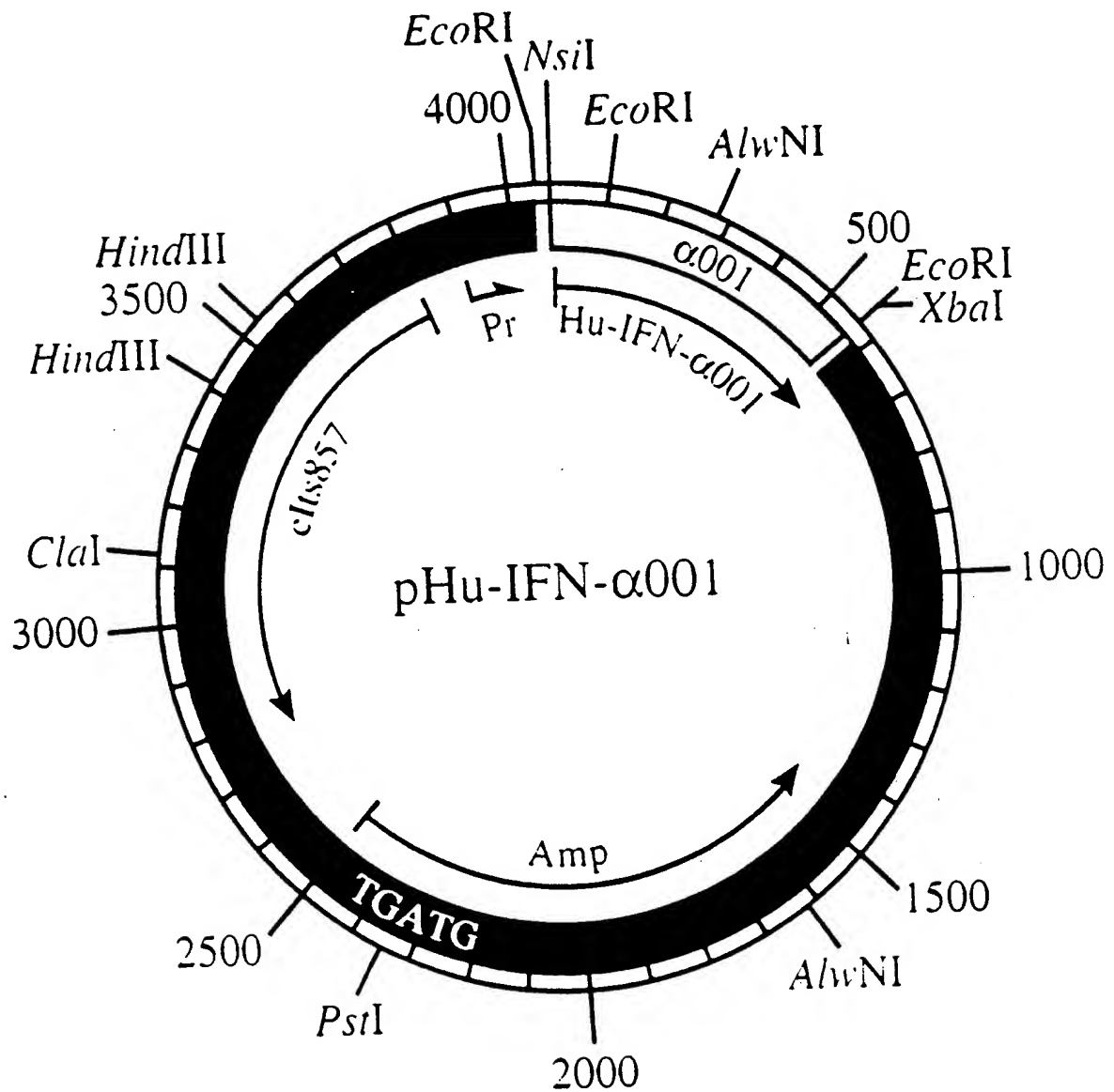


FIG. 3. Expression vector for Hu-IFN- $\alpha$ 001. The structure of the plasmid pHu-IFN- $\alpha$ 001 is shown. The *NsiI* site represents nucleotide position =1. The  $P_R$  promoter drives expression of Hu-IFN- $\alpha$ 001.

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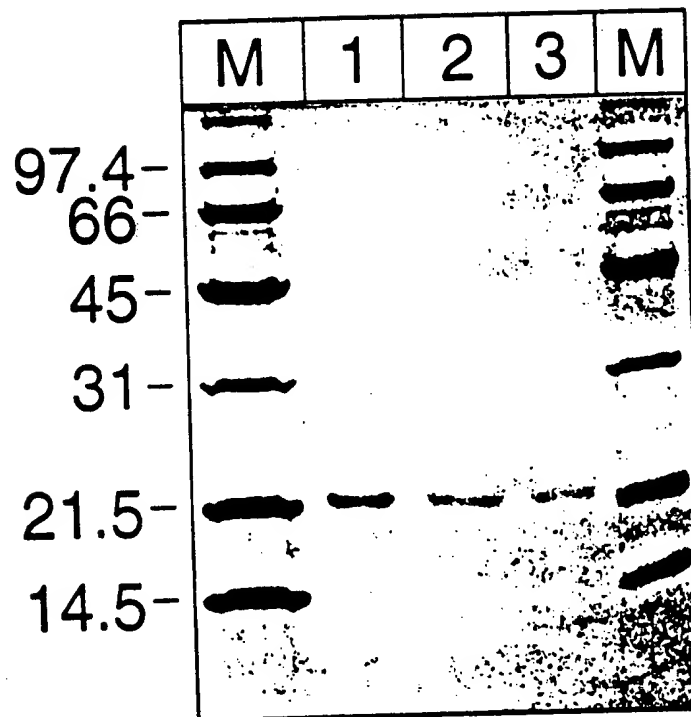


Fig. 4. SDS-Polyacrylamide Gel Electrophoresis of the Purified Hu-IFN- $\alpha$ 001. Hu-IFN- $\alpha$ 001 was placed in lanes 1, 2 and 3 in amounts of 3  $\mu$ g, 1.5  $\mu$ g and 0.75  $\mu$ g, respectively. The columns labeled M represent the molecular weight markers with the values in kilodaltons given to the left of each respective molecular weight marker.